

XLII.—*On the Weevil Genus Centrinus and its Allies.* By FRANCIS P. PASCOE, F.L.S. &c., formerly President of the Entomological Society.

IN Lacordaire's 'Genera des Coléoptères' *—a work without an equal of its kind—*Centrinus* is one of the seven genera of "Centrinides," which, again, form one of the eight subtribes of "Baridiides vrais;" but all these divisions, as well as the genera, are subject to exceptions, so as to be incapable of being rigidly limited. *Centrinus*, as defined by Schönherr †, is elastic enough to include almost any ordinary Curculionid with a slender rostrum; it has for its type *Baris bicuspis*, Germ. In the 'Munich Catalogue' 166 species are enumerated; but probably these are not half the number that exist in collections.

Writing in 1866 Lacordaire defined the genus, but only provisionally, and excluding the species having the claws united at the base; and for these, in a note, he pointed out that at least three genera were required. The characters on which Lacordaire relies in his table of the genera of "Centrinides" are the rostrum longer than the prothorax and the massive rhombic or elliptic body; he admits exceptions in regard to the first, and the second is wanting in precision. Yet, looking to the immense number of forms ‡ differentiated by all sorts of characters, passing into one another without any definite limitation, I doubt if anything more satisfactory can be devised.

The pectoral canal in this group is evidently a survival, for it is never capable, as in all the normal apostasimerous Curculionidæ, of receiving the rostrum, which, owing to its curve, in many cases very considerable, or to the contiguity of the anterior coxæ, is prevented from lying in the canal, which thus becomes either completely obliterated or remains more or less distinct, sometimes continued as far as the mesosternum, but never impinging on it. In some species the canal is replaced by a round cavity, which Lacordaire calls a *cul-de-sac*.

The species are confined to America, the greater number to the tropics. Drs. Leconte and Horn § describe twenty-five

* Tome vii. p. 233.

† 'Curculionidum Dispositio Methodica,' p. 309 (1826).

‡ M. Jekel estimates the number of species of Curculionidæ in collections at 30,000.

§ "The Rhynchophora of America north of Mexico," p. 306 (separate copy), from the 'Proceedings of the American Philosophical Society,' vol. xvi. (1876).

from the United States. According to their description of the genus *Centrinus*, as applicable to those species, the anterior coxæ are "rather widely separated," the femora "unarmed," and the tarsi "with stout divergent claws." They add, "In the males of several species the prosternum [pectus] just in front of the coxæ is armed with a slender process, which varies in length according to the individual, but not according to the species."

The table below is only intended to be suggestive of some of the genera that will be necessary when the group is more extensively examined. For the present it will be best to continue the old name. The majority of the species are unknown to me, and in the identification of those described in Schönherr's great work much is lost by the neglect of the characters afforded by the claws, the comparative length of the funicular joints, and the underpart generally, while the invariable reference to some other species for the size is very trying.

Claws free.

Canal nearly obsolete or absent.

Anterior coxæ separated.

Prosternum lower than the coxæ.

Elytra broader than the prothorax *Centrinus*. *C. bicuspis*, Germ.

Elytra not broader than the prothorax *Geræus*. *C. senilis*, Gyll.

Prosternum on a level with the coxæ *Salmites*. *C. querulus*, n. sp.

Anterior coxæ approximate *Balbus*. *C. conicollis*, Boh.

Canal distinct.

Scrobes lateral.

Femora toothed *Lydamis*. *C. angulus*, Boh.

Femora mutic.

Canal prolonged between the anterior coxæ *Rhianus*. *C. mexicanus*, Boh.

Canal not prolonged between the anterior coxæ *Ortycus*. *C. perdix*, n. sp.

Scrobes oblique, united beneath .. *Dimesus*. *C. geminus*, n. sp.

Scrobes oblique, running beneath but not united *Optatus*. *C. palmaris*, n. sp.

Claws united at the base.

Canal nearly obsolete or absent.

Pectus with a circumscribed central cavity *Camelodes*. *C. Leachii*, Kirby.

Pectus entire.

Mesosternum raised, more or less bilobed in front *Diastethus*. *C. tumidus*, Boh.

Mesosternum depressed *Pardisomus*. *C. guttatus*, n. sp.

Canal distinct.

Coxæ approximate.

Corbels of posterior tibiæ cavernous *Telemus*. *C. cestrotus*, Germ.

Corbels of posterior tibiæ open .. *Sympages*. *C. egregius*, n. sp.

Coxæ separated *Orissus*. *C. Meigenii*, Boh.

To the genera above not represented by new species the following characters will apply:—

Centrinus.—Canal obsolete or replaced by a circumscribed cavity; anterior coxæ separated; femora mutic; claws free; elytra broader than the prothorax.

Geræus.—Canal obsolete; anterior coxæ separated; femora mutic; claws free; elytra not or scarcely broader than the prothorax.

Balbus.—Canal obsolete; anterior coxæ separate; prosternum on a level with the coxæ; femora mutic; claws free.

Lydamis.—Canal distinct; anterior coxæ approximate; scrobes lateral; femora toothed; claws free.

Rhianus.—Canal distinct, prolonged between the anterior coxæ; femora mutic; claws free.

Camelodes.—Canal replaced by a circumscribed cavity; anterior coxæ separated; mesosternum raised; femora toothed; claws united.

Diastethus.—Canal absent; anterior coxæ separated; mesosternum raised, often emarginate anteriorly; femora toothed; claws united.

Telemus.—Canal distinct; anterior coxæ approximate; mesosternum depressed or sloping towards the prosternum; femora mutic; corbels of the posterior tibiæ cavernous; claws united.

Orissus.—Canal distinct; anterior coxæ separated; mesosternum depressed or sloping; femora toothed; claws united.

In some species of *Centrinus*, *Camelodes*, &c. the males are armed with horizontal spines projecting from the pectus, on each side of where the canal is or should be; but I hesitate to consider this a generic character. *Xenismus* and *Enops*, new genera, are allies.

The following species are believed to be hitherto undescribed.

Centrinus ferinus.

C. ovatus, niger, prothorace elytrisquo basi squamis piliformibus aureis dense tectis; rostro ferrugineo, arcuato, capite cum prothorace multo longiore, basi paulo compresso. Long. 2 lin.

Hab. Parana.

Ovate, black, prothorax and base of the elytra closely covered with golden-yellow piliform scales; rostrum ferruginous, slender, strongly arched, base slightly compressed; scrobes lateral, beginning at about a third from the base; antennæ pale brownish yellow; funicle slender, elongate, first joint as long as the next two together, the last three turbinate; club ovate; prothorax moderately convex, ridged in the middle from the base, the apex with a linear transverse impression; scutellum densely scaled; elytra cordiform, slightly broader at the shoulders than the prothorax, deeply striate, interspaces flat, obscurely punctured; body beneath black, closely covered with silaceous scales; legs pale ferruginous.

Centrinus auricollis.

C. ovatus, niger, prothorace squamis aureis; elytris sutura albosquamosis; rostro ferrugineo, fere longitudine elytrorum, modice arcuato, basi valde compresso. Long. 2 lin.

Hab. Amazon (Santarem).

Ovate, black, prothorax closely covered with dark golden piliform scales, elytra with the suture covered with white scales; rostrum ferruginous, as long as the elytra, moderately curved, more compressed at the base; the scrobes beginning behind the middle; antennæ yellowish ferruginous, slender, funicle and club as in the preceding; prothorax slightly ridged, scutellar lobe somewhat produced; scutellum oblong; elytra scarcely broader at the shoulders than the prothorax, striate, the interspaces indefinitely punctured; body beneath black, covered with silvery white piliform scales. The males have short pectoral horns.

This and the above are not to be distinguished by their technical characters from *Centrinus* proper.

Centrinus querulus.

C. ovalis, glaber, nitide niger; prothorace rufo, fere impunctato; rostro prothorace haud longiore, dimidio basali sulcato; elytris

inæqualiter convexis, anguste striatis, interstitiis fere impunctatis.
Long. $1\frac{1}{4}$ lin.

Hab. Parana.

Oval, smooth, glossy black, head, base of the rostrum, and prothorax chestnut-red; rostrum rather stout, not longer than the prothorax, a well-marked oblique lateral groove on the basal half; scrobes lateral, antemedian; antennæ blackish; funicle short, gradually thicker towards the club, the last joint being closely conjoined to it; eyes small, round; prothorax nearly impunctate, tubulate at the apex, the base bisinuate; scutellum round; elytra scarcely broader than the prothorax, very slightly rounded at the sides, transversely impressed near the base, narrowly striate, the interspaces flat and nearly impunctate; body beneath and legs black; claw-joint as long as the preceding joints together.

Type of *Salmites*. Pectus short, entire; anterior coxæ (widely) apart; prosternum on a level with its coxæ; mesosternum depressed; first abdominal suture nearly obsolete; femora mutic; claws free.

Centrinus perdis.

C. late ovatus, squamulis silaceis maculatim indutus; antennis rufoferrugineis; tibiis anticis rectis; tarsis articulo ultimo elongato.
Long. $1\frac{2}{3}$ lin.

Hab. Parana.

Broadly ovate, black, irregularly spotted with approximate silaceous narrow scales; rostrum rather longer than the head and prothorax together, compressed at the base; scrobes lateral, beginning in the middle; antennæ reddish brown; funicle short, first two joints of equal length, the last four transverse; club shortly ovate; prothorax transverse, moderately convex, in the middle a short raised line, at the sides minute oblique grooves; scutellum bilobed at the apex; elytra cordiform, broader at the base than the prothorax, deeply striate, the interspaces sharply raised; body beneath black, with scattered silvery-white hairs; femora stout, mutic; anterior tibiæ straight, the intermediate and posterior curved at the base; tarsi slender, except the third joint, claw-joint as long as the rest together; claws free.

Type of *Ortycus*. Pectus canaliculate; anterior coxæ widely apart; mesosternum depressed; first abdominal suture distinct; femora mutic; claws free.

Centrinus geminus.

C. subovatus, glaber, niger, nitidus; elytris singulatim macula

fulvo-squamosa in medio ornatis; antennis ferrugineis; scapo brevi; prothorace apice tubulato. Long. $2\frac{1}{2}$ lin.

Hab. Parana.

Subovate, smooth, shining black, in the middle of each elytron a round patch of fulvous scales; rostrum longer than the head and prothorax together, compressed at the base, strongly curved; scrobes beginning behind the middle, oblique, meeting beneath; antennæ ferruginous; scape not nearly reaching the eye; funicle with the first joint as long as the next four together, the last two closely applied to the club; prothorax slightly transverse, convex above, tubular at the apex, finely and sparingly punctured; scutellum subquadrate, expanded at the base; elytra subtriangular, shoulders not prominent, the base not much broader than the prothorax, finely striated, the interspaces flat and nearly impunctate; body beneath black, smooth, irregularly punctured; legs dark brown, with here and there a minute whitish setiform scale; tibiæ straight; tarsi narrow, except the penultimate joint; claw-joint elongate.

Type of *Dimesus*. Scrobes oblique, meeting beneath the rostrum; pectus elongate, canaliculate; anterior coxæ apart; femora mutic; claws free; two basal segments of the abdomen large, the suture obsolete. Differs from *Rhianus* (*Centrinus mexicanus*) in its shortly ovate facies and obsolete suture. The latter is a semiglobose form like *C. tardigradus*. *Rhianus* has the well-developed suture and semiglobose form.

Centrinus palmaris.

C. breviter ovalis, niger, prothorace utrinque apiceque ad latera miniato-squamoso; elytris triangularibus, striatis, interstitiis transversim undulatis; tarsis anticis dilatatis, fimbriatis. Long. 4 lin.

Hab. Mexico.

Shortly ovate, black, opaque, thinly covered with minute, ovate, whitish scales, the prothorax with a stripe of yellowish-red piliform scales on each side continued downwards at the apex; rostrum much longer than the prothorax, slightly curved, compressed at the base; scrobes nearly median, oblique; antennæ black; funicle elongate, first two joints longest, the third and fourth gradually shorter, the last three turbinate; club elliptic-oval; prothorax moderately convex, the base broad and strongly bisinuate, the middle lobe truncate, a raised median line not extending to the base, and obliquely grooved on the sides; scutellum very short and very broad, glossy black; elytra at the base broader than the

prothorax, cordiform, rather slightly convex, deflexed at the sides, narrowly striate, interspaces broad, flattish, crossed by minute, waved, raised lines, between them whitish piliform scales; body beneath black, shining; mesosternum, epimera, and sides of the abdomen covered with yellowish-red piliform scales; fore legs much longer than the others, their tarsi dilated and fringed with long blackish hairs.

Type of *Optatus*. Pectoral canal distinct; anterior coxæ contiguous; mesosternum raised, nearly vertical in front; first abdominal suture distinct; scrobes oblique, the posterior half passing beneath the rostrum, but not united to its fellow; femora toothed; claws free, but approximate.

Centrinus cupreus.

C. rhombicus, nitide cupreus, glaber, prothorace modice convexo, obsolete punctato; elytris leviter striato-punctatis; corpore infra valde nitido, maculis quatuor aureo-squamosis decorato. Long. $3\frac{1}{2}$ lin.

Hab. Parana.

Rhombic, glossy copper-coloured; rostrum slender, moderately curved, finely and remotely punctured; scrobes postmedian; antennæ ferruginous; scape rather short; funicle twice as long as the scape, first two joints equal in length; club short, subpyriform; prothorax slightly convex above, obliquely punctured, except at the apex, the base bisinuate, scutellar lobe moderately broad; scutellum transverse, the apex mucronate; elytra broader than the prothorax at the base, shoulders rounded, finely striate-punctate, interspaces impunctate, near the apex on each elytron a shortly elevated callus; body beneath glossy brown, with a large dense patch of rich golden-yellow scales on each side of the metasternum and another on the pectus, the metasternum with minute but distinct scattered punctures; legs rather stout, tibiæ short, sulcate; second joint of the tarsi as broad as the third.

This species is nearly allied to *C. lucens* and *C. cupratus*, but these have the body beneath entirely glabrous, and have more of a golden tint; the former has the second joint of the funicle half as long again as the first, the anterior coxæ more approximate, a coarser and closer punctuation on the metasternum, &c. They belong to the *Diastethus* division, which has for its type *C. tumidus*, Boh.

Centrinus guttatus.

C. ovatus, niger, albo-guttatus, capite prothoraceque antice aureo-squamosis; pedibus ferrugineis, squamis oblongis separatim in-

dutis; rostro modice arcuato, antennisque fulvo-ferrugineis. Long. 3 lin.

Hab. Nauta.

Ovate, black, with distinct round white spots; head and apex of the prothorax covered with golden-yellow scales; rostrum longer than the prothorax, slightly curved, yellowish ferruginous, the basal half with five well-marked raised lines; scrobes oblique, beginning considerably beyond the middle of the rostrum; antennæ pale ferruginous; funicle elongate, the second joint longer than the first; club shortly ovate; prothorax transverse, rounded at the sides, convex, and with five spots (three basal) above; scutellum broadly transverse; elytra broader than the prothorax at the base, gradually narrowed at the sides, finely striate, interspaces minutely granulate, the side from the shoulder with two and the posterior third with several elevated lines, on each elytron five larger and a few smaller spots; body beneath chestnut-brown, the sterna and sides of the abdominal segments covered with whitish scales; legs pale yellowish brown, with narrow approximate whitish scales; tibiæ grooved, inner margin ciliated; tarsi broad, fringed with blackish hairs.

Type of *Pardisomus*. Scrobes oblique, the distal half passing beneath the rostrum; pectus short, entire; anterior coxæ approximate; mesosternum declivous; femora toothed; claws united at the base; first abdominal suture distinct.

Centrinus egregius.

C. breviter ovatus, niger, prothorace in medio nigro, carinato, macula magna læte sanguinea ornato; elytris carinulatis. Long. 1½ lin.

Hab. Pará.

Shortly ovate, black, somewhat opaque, the prothorax with a large bright spot of blood-red scales on each side; rostrum not longer than the prothorax; scrobes beginning at about the middle; antennæ yellowish brown; funicle rather short, first joint longest; club broadly ovate; prothorax convex, a glossy raised line from the apex to the base, closely punctured on each side; scutellum subquadrate, smooth; elytra cordiform, striate, the interspaces punctured and raised more or less sharply, especially towards the apex, where there is also a sprinkling of greyish scales; body beneath black, strongly punctured; legs black, with scattered white narrow scales; tibiæ slightly curved; tarsi with the two basal joints narrow, claw-joint not half so long as the rest together.

Type of *Sympages*. Pectus very short, canal distinct;

anterior coxæ approximate; mesosternum depressed; first abdominal suture distinct; femora toothed; claws united.

Of the two genera described below, *Enops* is perhaps somewhat doubtful as an ally of *Centrinus*.

XENISUS.

Rostrum longissimum, filiforme, arcuatum; scrobes laterales; antennæ tenues, clava elongata, cylindrica; prothoracis basi vix bisinuata; elytra triangularia; pectus ampliatus, haud canaliculatum; mesosternum latum, elevatum, antice verticale; abdomen segmentis duobus basalibus valde ampliatis, conjunctis; coxæ anticæ separatae; femora mutica; unguiculi liberi.

The cylindrical club differentiates *Centrinus* from *Cylindrocerus*, from which it was at first separated by Schönherr as a subgenus; the character, however, is confined to the males, and is present in the genus before us, whose remarkably slender rostrum throughout is almost unique among the Curculionidæ.

Xenismus curvirostris.

X. subellipticus, glaber, niger, nitidus; prothorace castaneo; elytris in medio flavis; rostro corpore longiore, valde arcuato; antennis piceis, articulis 2^o-7^m apice setosis. Long. 3¼ lin.

Hab. Columbia.

Subelliptic, smooth, glossy; prothorax chestnut-brown; elytra flavous in the middle; rostrum longer than the body, the curve semicircular; scrobes lateral, beginning at one third from the base; antennæ black, slender; funicle elongate, the first joint as long as the club, the second to the seventh with setiform hairs at the apex; prothorax transverse, constricted at the apex, the base slightly bisinuate, nearly impunctate; scutellum subquadrate; elytra subtriangular, as broad as the prothorax at the base, the shoulders generally rounded, striate-punctate, punctures oblong, approximate, interspaces very convex, a broad fulvous band across the middle, nearly extending to the apex; body beneath glossy black, metasternum at the sides covered with golden-yellow scales; legs glossy; femora subclavate, mutic; tibiæ straight; tarsi with the third joint broadly bilobed; claws free.

ENOPS.

Rostrum elongatum, basi vix incrassatum, arcuatum, apice paulo latius; scrobes laterales; antennæ tenues, clava ovata; prothorax transversus, ad latera in medio dilatatus, basi bisinuatus; elytra late triangularia; pectus breve, profunde canaliculatum;

coxæ anticæ basi contiguous; mesosternum depressum, leviter excavatum; sutura prima abdominis distincta; femora dentata; unguiculi bifidi.

A very distinct genus, well differentiated from all the forms of *Centrinus* by the dilated sides of the prothorax, and bifid claws. The anterior coxæ diverge so as to form a continuation of the pectoral canal.

Enops interruptus.

E. breviusculus, rufo-brunneus, sat dense griseo-pubescent; antennis concoloribus; funiculo articulis duobus basalibus elongatis; prothorace fere impunctato; elytris interrupte carinatis, interstitiis biseriatis punctatis. Long. 3 lin.

Hab. Parana.

Rather short, yellowish brown, thinly covered with a greyish pubescence; rostrum nearly as long as the elytra, moderately curved, the basal half with somewhat indefinite raised lines, the apex dilated; scrobes lateral, beginning rather beyond the middle; funicle elongate, the first two joints as long as the rest together, club oblong ovate; prothorax slightly transverse, the base with a raised line, the dilated part forming a spinous angle anteriorly; scutellum smooth, round; elytra triangular, convex, nearly twice as broad as the prothorax at the base, the shoulders obliquely truncate, each elytron with three interrupted raised lines, the outermost abbreviated, a fourth marking the abruptly vertical side, interspaces with two rows of large punctures; body beneath pitchy, covered with a greyish pubescence; legs somewhat slender; femora subclavate, armed with a small tooth.

MISCELLANEOUS.

On the Proper Generic Name of the Tunny and Albicore.

By THEODORE GILL.

In 1817, in the first edition of the 'Règne Animal,' Cuvier proposed two subgenera of *Scomber*, which he employed, however, in a generic sense: one, *Thynnus*, was based upon the common tunny (with which were associated other and smaller species), having moderate pectoral fins; and the other, *Orcynus*, was based upon the *Alalonga* of the Mediterranean and characterized by the long pectoral fins. Subsequently by many ichthyologists these two genera were combined into one under the name of *Thynnus*. In 1861 the